Referee report on "Fiscal Monetary Services and Inflation"

This paper uses the idea that government securities provide monetary services to their holders to construct a Fisher ideal index of marketable US Treasury debt. It shows that the value of these monetary services increases the fiscal capacity of the government primarily through the safety they provide in a partial equilibrium model with short- and long-term debt. It then uses this constructed metric to uncover the growth rate of these fiscally-provided monetary services and show that an increase has an inflationary impact that is persistently positive and both statistically and economically significant.

While I find the topic interesting, I also find the paper is not rigorous enough. In fact, I find that some parts of the paper are intrinsically wrong. I will elaborate on this below.

1. This paper is right that compared with the Divisia index, the Fisher index is capable of handling zero values. However, the author fails to realize that the Fisher index is exact for a flexible second-order quadratic mean aggregator (utility or production) function (Diewert, Journal of Econometrics, 1976(4): 115-45). This implies that when you use the Fisher index to construct monetary or fiscal assets, you are implicitly assuming that the underlying aggregator function takes a second-order quadratic mean functional form. This is important to note because, in equation (8), a constant elasticity of substitution function is assumed for the fiscal assets, which obviously contradicts with this implicit assumption..

2. The paper does not theoretically show how the Fisher index of fiscal assets is derived. By failing to do so, the paper does not realize that the theoretical framework for deriving the user cost is inconsistent with the theoretical framework from which the Fisher index of fiscal assets is derived.

   Specifically, as in the pioneering works of Barnett (e.g., Barnett and Chauvet, Open Economies Review 2009(20): 1-20), the Fisher index of assets should also be derived from an optimizing agent, where the agent chooses asset portfolio allocation to maximize his utility subject to a budget constraint. Within this framework, separability between assets and consumption goods (as well as leisure) has to be assumed. Without this assumption, one cannot show that the monetary aggregator is just optimal level utility of assets and that the monetary aggregator function can be tracked by a Divisia index or a Fisher index. However, when deriving the user costs, the present paper assumes that the fiscal assets are not separable from consumption goods and leisure. Obviously, this latter assumption contradicts with the former assumption under which the Fisher index of fiscal assets is derived.

3. This paper is correct in stating that the Divisia or Fisher index is a superior approach to the simple sum method for calculating the monetary or fiscal assets. The reason for this is that the underlying assets are not perfect substitutes. However, in my opinion, the paper does not adequately explain why fiscal assets are not perfect substitutes in Section 2.2. I would suggest that the author revise this section to provide a clearer explanation.

4. In Equation (7), the paper assumes that the utility function is a function of consumption goods, leisure, and fiscal assets. My question is, why can fiscal assets directly enter the utility function? What type of utility can fiscal assets provide to the consumer? I suggest that the author provide a clearer discussion in this paragraph. Otherwise, the lack of explanation may leave readers unsure why this is the case.